

Unit Strategic Fire Plan ***Kern County Fire Department***

Updated May 2013



UNIT STRATEGIC FIRE PLAN AMENDMENTS

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Table of Contents

SIGNATURE PAGE.....	1
EXECUTIVE SUMMARY	2
SECTION I: UNIT OVERVIEW.....	4
UNIT DESCRIPTION	4
UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES	7
SECTION II: COLLABORATION.....	8
COMMUNITY / AGENCIES / FIRE SAFE COUNCILS	8
VALUES.....	10
COMMUNITIES	11
SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES	13
FIRE PREVENTION.....	13
ENGINEERING & STRUCTURE IGNITABILITY	15
INFORMATION AND EDUCATION	16
VEGETATION MANAGEMENT	18
SECTION V: PRE- FIRE MANAGEMENT TACTICS.....	19
DIVISION / BATTALION / PROGRAM PLANS	19
APPENDIX A: PRE- FIRE PROJECTS	28
APPENDIX B: UNIT GOALS AND OBJECTIVES	29
APPENDIX C: MAPS.....	35
APPENDIX D: IGNITIONS.....	42
SUMMARY.....	43

SIGNATURE PAGE

Unit Strategic Fire Plan developed for Kern County Fire Department

[Return to Table of Contents](#)

This Plan:

- Was collaboratively developed. Interested parties, Federal, State, City, and County agencies within the Unit have been consulted and are listed in the plan.
- Identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce the loss of values at risk within the Unit.
- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met as necessary.

Unit Chief

Brian Marshall, Fire Chief
Kern County Fire Department

Date

Deputy Chief

Don Brady, Deputy Chief
Aviation and Wildland
Kern County Fire Department

Date

Pre-Fire Engineer

Robert White
Fire Engineer
Kern County Fire Department

Date

The Kern County Fire Department Wildland Fire Management Plan documents the assessment of the wildland fire situation throughout the State Responsibility Area (SRA) within the county. It includes stakeholder contributions and priorities, and identifies strategic targets for pre-fire solutions as defined by the people who live and work with the local fire problem.

The goal of the Plan is to reduce costs and losses from wildfire by protecting assets at risk through focused pre-fire management prescriptions and increasing initial attack success.

Utilization of computer-based data and Geographic Information Systems (GIS) provides for a comprehensive analysis of fire hazards, assets at risk, and level of service to be included in the Wildland Fire Management Plan. In short, the Kern County Fire Department Wildland Fire Management Plan will systematically assess the existing levels of wildland protection services, and identify high-risk and high-value areas that are potential locations for costly and damaging wildfires. The Plan will then rank the areas in terms of priority needs, and prescribe what can be done to reduce future costs and losses.

Applications of the Fire Plan Framework

- Identify for state, federal, and local officials and the public those areas of concentrated assets and high risk.
- Allow the KCFD to create a more efficient wildland fire protection system, focused on meaningful solutions for identified problem areas.
- Give citizens an opportunity to identify public and private assets to design and carry out projects to protect those assets.
- Identify, before fires start, where the most cost-effective fire management investments can be implemented.
- Encourage an intergovernmental public/private approach to reducing costs and losses.
- Enable policy makers and the public to focus on what can be done to reduce future costs and losses from wildfire.

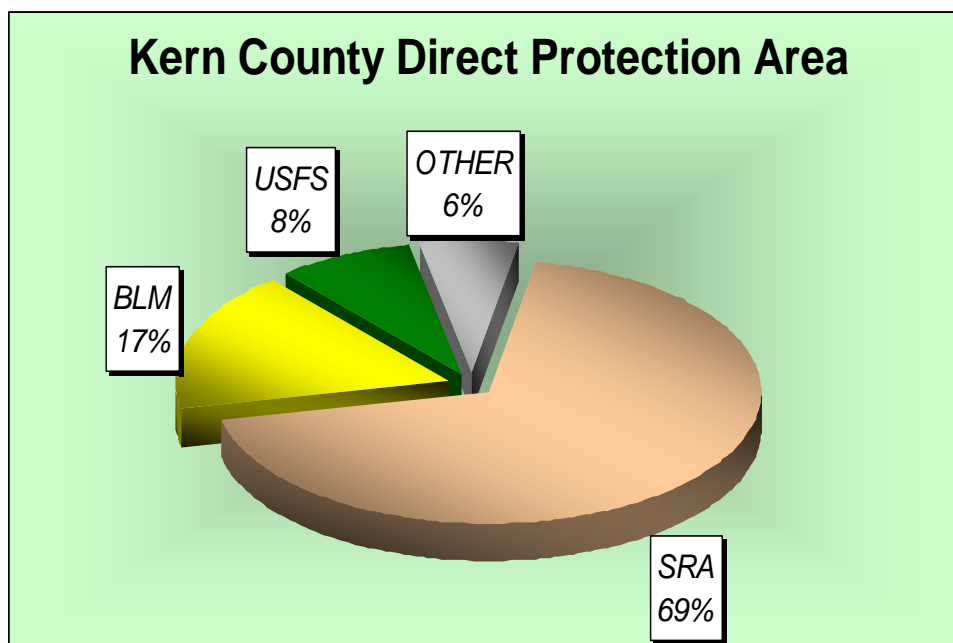
The intent of the Kern County Fire Department Wildland Fire Management Plan is to document the findings of the assessment and communicate the intent of the KCFD management and the stakeholders toward solving a mutually agreed on fire problem within Kern County. This fire plan would also be used to communicate with adjacent administrative units. Coordinated projects that make sense in a regional perspective, as well as a local perspective, can gain additional support. This plan will be especially helpful when explaining funding requests to control agencies, i.e., the Board of Supervisors and committees, and in explaining the Kern County Fire Department's activities to the general public.

Citizen advisory groups, and appointed and elected officials; prepare long-range plans that reflect local community desires for public safety, public health, public welfare, and environmental quality of life. Many areas of Kern County have more localized community plans or area plans containing safety and conservation elements. Wildland fire issues and county land use zoning and development will be considered in the Wildland Fire Management Plan.

The intent of this document is to have a simple, easy to understand report that gets used. Annual (or more frequent) monitoring will be included when elements of the Wildland Fire Management Plan are implemented. This will help determine effectiveness of the projects in reducing costs and losses to the wildland fire protection system. Monitoring will be tested against pre-project conditions and will allow for adjustments for initial attack fires. These results will be used to adjust project design and priorities over time.

The Kern County Fire Department Wildland Fire Management Plan is intended to be a dynamic document that will continue to develop and evolve over time.

The Table below represents the area within Kern County that is SRA:

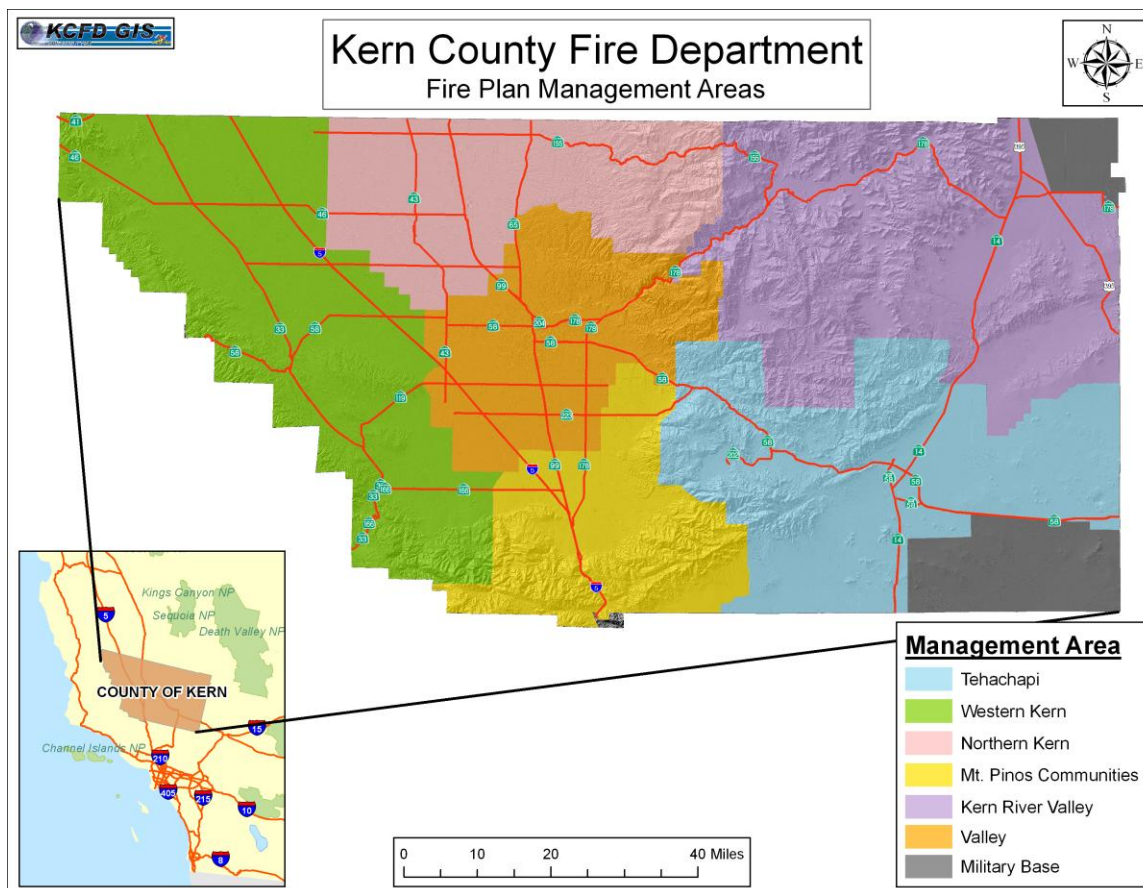


SECTION I: UNIT OVERVIEW

[Return to Table of Contents](#)

UNIT DESCRIPTION

The County has been broken into 6 different Fuel Management Areas:



Battalion 1 Tehachapi

OVERVIEW

Battalion 1 includes the southeastern portion of Kern County. It is divided by State Highway 58 that runs east/west and by State Highway 14 that runs north/south. The California Aqueduct, running north and south, establishes the eastern edge of the State Responsibility Area (SRA) in Battalion 1. The western edge of the SRA in Battalion 1 is defined by the toe of the slope along the southeastern edge of the San Joaquin Valley. The total SRA acreage in Battalion 1 is 951,6000 of which 351,276 acres is SRA lands. Of the incorporated cities within Battalion 1, Tehachapi is surrounded by SRA and Arvin has SRA to the south and east. The town of Rosamond has SRA to the west. There is also a substantial amount of Bureau of Land Management (BLM) Direct Protection Area (DPA) to the north and west.

The fuel models that predominate are grass (FM1 and 2), brush (FM4 and 6), and some areas of timber in the higher elevations (FM8). Additionally, there has been a substantial amount of bug kill in the larger trees in the Tehachapi, Alpine and Bear Valley Springs areas. Historically, many of the larger fires in the County have originated in this area, however, an influx of residential development has reduced the number of large fires in recent years. The reduction in the number of fires is a positive aspect; however, the negative side of this growth is that any fires that become established in this area will immediately threaten high value/high risk exposures. A CWPP has been adopted and has been put in place to represent the communities of battalion

Battalion 2 Western Kern

OVERVIEW

Battalion 2 comprises most of the west side of the County of Kern. West of State Highway 33 and most of what is adjacent to State Highway 166 is either SRA or Federal Responsibility Area (FRA). The FRA is predominantly Bakersfield BLM with a small portion of Los Padres National Forest, with some Fish and Wildlife Service area in the Bitter Creek Wildlife Refuge. There are no large, incorporated cities within Battalion 2 that impact the SRA; however a large portion of the area is oil installations. The total acreage is 1,100,147 which SRA acreage within Battalion 2 is 455,293.

The fuel model that covers most of the west side of the battalion is grass (FM1) with a scattering of brush and some oak trees. As the elevation increases in the southern and western end of the battalion there is more sage and pine (FM2).

Battalion 3 North Kern

OVERVIEW

Battalion 3 includes the north central portion of the county. Relative to the State Responsibility Area, the most important feature is State Highway 65. Highway 65 is the western boundary for most of the SRA in Battalion 3. The other main road through the area is State Highway 155 that runs east and west from Lake Isabella to Delano. To the east of the SRA in the battalion is Sequoia National Forest. There is a large portion of SRA (193,450 acres) in Station 26's area in the northwest corner of the County. The total SRA acreage for Battalion 3 is 409,566 acres. The fuel model is predominantly grass and oak trees (FM1), with some pockets of brush. Much of the area is rangeland utilized for cattle grazing, with very little public access.

There are presently no identified projects within the Urban Interface areas of Battalion 3 that would take a higher priority than projects identified in other battalions.

Battalion 5 Mt. Pinos Communities

OVERVIEW

Battalion 5 is the extreme South/South West portion of the County it is bordered by Los Angeles County and Ventura County. Most of the mountain areas of Battalion 5 are sparsely populated with the exceptions of the pockets created by Lebec, Frazier Park, Lake of the Woods, Pinion Pines, and Pine Mountain Club. These communities all

located adjacent to the Los Padres National Forest. Fires that become established in or immediately adjacent to these areas will threaten lives and property in a short time.

Historically, fires in Battalion 5 which start in the grasslands reach large acreage in a short period of time, however, they are able to control in the first 1-2 burning periods unless there is a significant wind component associated with the spread. Fires in the higher elevations are generally much smaller, but are much more resistant to control due to the heavy fuels. A CWPP has been adopted and been put into place for the area.

Battalion 4&6 Valley/ Foothill

OVERVIEW

Battalion 4 and 6 is predominantly Local Responsibility Area (LRA) on the south and east sides of Bakersfield. There is some SRA in the eastern portion of the battalion that adjoins the Sequoia National Forest. There are 96,023 SRA acres in Battalion 4. The main accesses to the State Responsibility area within Battalion 4 is along State Highway 58 which runs east and west through the battalion and Breckenridge Road, which runs northeast out of Bakersfield up into the National Forest on top of Breckenridge Mountain. Within the SRA of Battalion 4, there are no towns or cities, incorporated or unincorporated, and only one subdivision of consequence.

Battalion 7 Kern River Valley

OVERVIEW

Battalion 7 includes the northeast portion of Kern County. It is a diverse mixture of Direct Protection Areas with Federal Responsibility Areas, both Forest Service and Bureau of Land Management and SRA (253,776 acres). North/south highways include State Highways 178 and 14 and the main east/west highway being State Highway 155. There are numerous unincorporated towns within the battalion, including Havilah, Lake Isabella, Bodfish, Wofford Heights, Kernville, and Southlake. All of these towns are listed by the California Fire Alliance as being at high risk to wildfire. Battalion 7 has a history of large, damaging wildfires. Included recently are the King (2000), Borel (2002; five residences lost), and the Deer Fire (2002; 47 residences lost). The Manter (2000) and the McNally (2002) Fires also burned just north of the Kern County line in this same area. The fuel models range from grass (FM1) to brush (FM4) to timber (FM8), with large areas of pinion/juniper (FM6). A CWPP has been adopted and been put into place for the area.

Level of Service

Fighting fire in Kern County is truly a cooperative effort. Kern County Fire Department provides fire protection by contract to the cities of Delano, McFarland, Wasco, Shafter, Arvin, and Ridgecrest. Kern also cooperates fully with the other incorporated cities within the county: Bakersfield, Taft, and California City. Additionally, Kern County Fire Department actively participates in the State Master Mutual Aid system and has operating agreements with the USDA Forest Service Sequoia and Los Padres National Forests, the Bakersfield and Cal Desert Districts of the USDI Bureau of Land Management, CAL FIRE & Department of Forestry, and the Fish and Wildlife Service. The cooperation between all the above-listed agencies comprises the fire protection delivery system within the County of Kern.

The legislature has charged the California fire service with providing an equal level of fire protection to lands of similar type (PRC 4130). To do this, we must have a system to analyze the level of service being provided to the wildland areas. This rating is expressed as the percentage of fires that are successfully attacked. Success is defined as those fires that are controlled before unacceptable damage or cost is incurred.

$$\text{Success Rate} = \frac{\text{Annual number of fires that were small and extinguished by initial}}{\text{Total number of fires}} \times 100 = \text{the success rate in percent}$$

The result is an initial attack success rate in percentage. **For our purposes, and as defined by Cal Fire (State Board of Forestry), any fire suppressed at less than 10 acres was considered an initial attack success.**

Available Resources	
Available Resources	
Resource Type	Number
Helicopter Type 2/Hoist & Night Vision Capable	2
Dozer Type 2*	6
Hand Crew Type 1*	3
Engine Type 4	45
Engine Type 3	15
Engine Type 2x	5
Engine Type 1	36
Mobile Kitchen Unit	1

A. Crews/Dozers can be assembled in Strike Team configuration. Two dozers staffed daily.

SECTION II: COLLABORATION

[Return to Table of Contents](#)

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

Representatives involved in the development of the Unit Strategic Fire Plan are included in the following table. Their organization and title are indicated below:

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Fire knows no boundaries and accordingly, neither should a plan that seeks to reduce the risk from wildland fire. Stakeholders are defined as any person, agency, or organization with a particular interest – a stake – in fire safety and protection of assets from wildfires. The Kern County Fire Department has made a considerable attempt at involving stakeholders and many of their interests in the development of the KCFD Wildland Fire Management Plan. The process of identifying stakeholders and their interests is an ongoing process, and will be evaluated continuously through the evolution of future fire management plans. It is the goal of the Kern County Fire Department to participate with as many stakeholders as possible and to continually update planning efforts involving stakeholder input.

Plan Development Team:

Political Entity	Jurisdiction
Kern County Supervisors	Local Government
Bakersfield Fire Department	City Fire Protection
Ventura County Fire	Local Government/SRA Fire
Los Angeles County Fire	Local Government/SRA Fire
Cal Fire/Department of Forestry	State
Santa Barbara County Fire	Local Government/SRA Fire
Kern County Parks Department	Local Government
Kern County Road Department	Local Government
Kern County Sheriff	Local Government
US Forest Service Los Padres	US Government
US Forest Service Sequoia	US Government
Bureau of Land Management (CDD)	US Government
Department of Fish and Game	State
US Fish and Wildlife Service	US Government
California State Parks	State
Local Community Service Districts	Local Government
Local Property Owner Associations	Local Government
Cal Trans	State
Air Pollution Control Districts	State/County
Tejon Ranch Inc.	Private

Fire Safe Councils

Fire Safe Councils are instrumental in bringing a representative group of stakeholders to “the table.” The councils shed light on many concerns within communities and expose information relating to the effectiveness of the Kern County Fire Department’s fire safe efforts. The department is able to respond and adapt activities to address many of the concerns from the different stakeholders involved with the fire safe councils. Through the councils’ diversity, agencies have been able to develop Community Wildfire Protection Plans (CWPP) that otherwise may never have been developed.

Kern River Valley Fire Safe Council

www.krvfiresafecouncil.org

The Kern River Valley Fire Safe Council is one of three councils in Kern County. It was established in January 1999. The council represents an area which includes 20 unincorporated mountain communities, all of which have some degree of wildland/urban interface. Seven of these communities are listed by the California Fire Alliance as “high risk” to wild fire.

The Kern River Valley Fire Safe Council is a consortium of fire agency personnel and representatives of the property owners associations that surround Lake Isabella. This council has been very successful at conducting fire safe presentations, fuels reduction projects, and the development of a Fire Safe Plan for the Kern River Valley.

Mt. Pinos Communities Fire Safe Council

<http://www.mtpinosfsc.org/>

The Pine Mountain Communities Fire Safe Council is located in the Pine Mountain Club, Pinion Pines, and Lake of the Woods, Frazier Park, and Lebec and Tejon Mountain Village areas. The major participants of this council are the Pine Mountain Club POA, the Pinion Pine POA, the Frazier Park Town Council, and Tejon Ranch, Tejon State Park the Los Padres National Forest, the Kern County Parks Department, and the Kern County Fire Department.

Additionally, due to the proximity of Los Angeles and Ventura Counties, both are in participation.

Greater Tehachapi Fire Safe Council

<http://www.tehachapifiresafe.com/>

The Greater Tehachapi Fire Safe Council was established in 2004 and has been very active in airing several grants for fuels management projects. The council includes the following communities, Tehachapi, Golden Hills, Alpine Forest Park, Bear Valley Springs, Old West Ranch, Stallion Springs, Hart Flat and Sand Canyon. It is also has several agencies included BLM, Tejon Ranch, Sierra Forest Products local Wind Energy agencies, Local Community Services Districts and Property Owners associations and Kern County Parks Department, and the Kern County Fire Department.

A: VALUES

The primary goal of wildland fire protection in Kern County is to preserve the variety of assets found within the county. The assets at risk are both public and private and interplay with one another to provide the quality of life we experience within the county. These assets include:

- Structures – residential and commercial
- Air Quality – degradation due to smoke from fires
- Rangelands – loss of grazing
- Timber – loss of timber resources
- Scenic – viewscape
- Recreation – loss of recreational facilities or open areas
- Wildlife – loss of critical habitat or game
- Hydroelectric power – damage to watersheds that support plants

The value of the assets at risk determines the commitment of resources and the prioritization of program funds and projects.

B: COMMUNITIES[Return to Table of Contents](#)

There are currently 25 communities in Kern County registered as Communities at Risk by the California Fire Alliance. The threat to these communities varies from slight to extreme. Those, such as Arvin, and California City, which have an interface with SRA land in mostly uninhabited areas of the incorporated city, are slightly threatened. Others such as Bear Valley Springs, and Wofford Heights, which have most of their inhabited areas that are interface or intermix with SRA land, have an extreme risk. Other communities such as Pine Mountain Club, which is an intermix community within the Los Padres Forest are at high risk but are not officially on the California Fire Alliance list of communities at risk.

Ca Fire Alliance Communities at Risk in Kern County:

	<u>Place Name</u>	<u>County Name</u>	<u>Federal Threat</u>	<u>Federally Regulated</u>	<u>Year</u>
1	Arvin	Kern			2014
2	Bakersfield	Kern		✓	2014
3	Bear Valley Springs	Kern			2014
4	Bodfish	Kern	✓	✓	2014
5	California City	Kern	✓	✓	2014
6	Edwards Air Force Base	Kern	✓	✓	2014
7	Frazier Park	Kern	✓	✓	2014
8	Golden Hills	Kern		✓	2014
9	Keene	Kern			2014
10	Kernville	Kern	✓		2014
11	Lake Isabella	Kern	✓	✓	2014
12	Lebec	Kern			2014
13	Mountain Mesa	Kern	✓	✓	2014
14	North Edwards	Kern	✓	✓	2014
15	Onyx	Kern	✓	✓	2014
16	Randsburg	Kern	✓	✓	2014
17	Ridgecrest	Kern	✓	✓	2014
18	Rosamond	Kern		✓	2014
19	South Lake	Kern	✓	✓	2014
20	South Taft	Kern	✓		2014

21	Taft	Kern	✓		2014
22	Taft Heights	Kern	✓	✓	2014
23	Tehachapi	Kern		✓	2014
24	Weldon	Kern	✓	✓	2014
25	Wofford Heights	Kern	✓	✓	2014

A: FIRE PREVENTION

Kern County has adopted the International Wildland Urban Interface Code and has a robust Hazard Reduction program to educate the public and enforce defensible space requirements. Beginning in April our Public Information Office begins a series of media campaigns in both print and visual media to remind the public of their responsibility to ensure defensible space on their property. Also in April, postcards are mailed to all property owners in the SRA to remind them of our requirements. Properties not in compliance by June 15th are assessed an administrative penalty. Subsequent administrative penalties may be assessed for every 30 days that properties remain out of compliance.

In Addition Kern has held Wildland Fire Expos at or near the beginning of each fire season. These expos are held in Pine Mtn Club, Frazier Park, Tehachapi, and Lake Isabella. These events consist of Kern County Crews Dozers, Helicopters, and Engines. Also Forest Service and BLM are jointly involved. This acts as a meet and greet community fire prevention event.

Postcards mailed to property owners in SRA areas

Provide a **30 ft.** clearance of all combustibles and vegetation around all structures and an additional **70 ft.** of reduced vegetation for a total of **100 ft.** Large trees do not have to be cut and removed, as long as all of the fuel beneath them is removed. This eliminates a vertical "fire ladder".

Remove trees and limbs within **10 ft.** of stovepipe and chimney outlets. Install a spark arrester on all stovepipes and chimney outlets. Arresters shall be constructed of heavy wire mesh with openings no greater than one-half ($\frac{1}{2}$) inch.

Remove any dead limbs that overhang structures and clear roof of all combustible vegetation including leaves and pine needles.

For more information please visit:
www.kerncountyfire.org
or contact your local Kern County Fire Station

Property clearance MUST BE completed by June 15th. All properties not in compliance by June 15th are subject to administrative citations. Subsequent penalties may be assessed after July 15th if property is not cleared.

PSRKT STD
US POSTAGE
PAID
BAKERSFIELD CA
PERMIT #840

Kern County Fire Prevention inspectors play a lead role in ensuring that all new construction is built in compliance with applicable laws including Title 19 and Title 24, PRC 4291, and the International Wildland Urban Interface Code. All new development goes through the EIR process and then specific plans are inspected prior to approval. Work is then inspected during the building process to ensure that it is in compliance before final approval is given.

Pre-Fire Planning

KCFD has prepared Pre-fire plans for each of the wild land-urban inter-face communities with a detailed structure protection plan. Each community has evacuation instructions, a medical plan, a communication plan, and a detailed map. Pre-fire boxes have been placed adjacent to the communities and will be easily located and identified for emergency responders to utilize. Each box contains a set of the detailed maps including information needed when tasked with structure protection during a wildland fire. This information includes:

A. Roads and driveways

Color Code for roads;

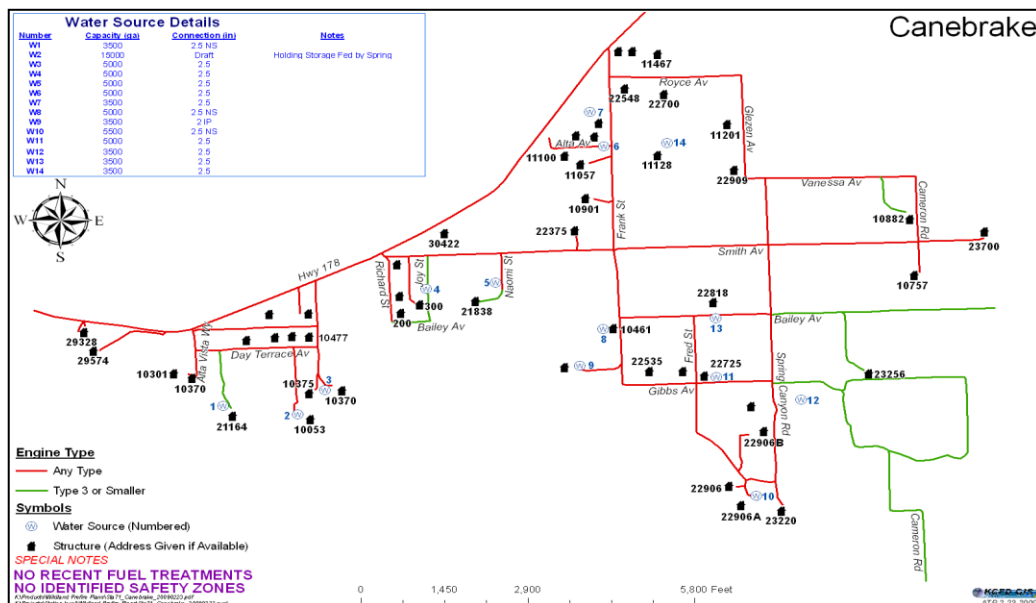
Red = any type of engine

Green = type 3 engine or smaller

Yellow = type 4 engine

Dotted Orange = mostly impassable or 4x4 only

2. Road names
3. Locked gates
4. Bridges, load limits
5. Heliports & Dip sites
6. Safety Zones
7. Special hazards
8. Staging areas
9. Addresses
10. Water sources



Raws

Since 2005 we have been updating our fire weather collection stations. We have been able to install 8 Remote Area Weather Stations (RAWS) throughout the county.

Station Name	Location
KRN01	Battalion 1
KRN02	Battalion 1
KRN03	Battalion 5
KRN04	Battalion 7
Twisselman	Battalion 2
Grapevine Peak	Battalion 5
Hart Flat	Battalion 1
Woody	Battalion 3

Short and Mid range goals:

- Continue to develop Community Wildland Pre-Fire Plan Maps.
(Short)
- Establish Vegetation Management Partnerships with Homeowner's Associations, and Community Services Districts to share the cost of constructing and maintaining community fuel breaks.
(Short)
- Staff Seasonal Fire engines in remote communities.
(short)
- Develop and maintain Inmate Fire Crews to assist with emergency activity and fuels reduction work
(Mid)
- Educate Kern County Sheriff Deputies in Wildland fire evacuation. Including Officer Safety in and around active fire areas.
(Mid)

B. VEGETATION MANAGEMENT

[Return to Table of Contents](#)

Proper management of vegetation is critical to a successful Fire Plan and Pre Fire Management. Since 2004, Kern County Fire Department has been able to complete over 3,500 acres of fuels reduction work in and around communities at risk. These projects include shaded fuel breaks to aide with fire suppression activities, escape routes projects for safe access and egress of public and emergency equipment, and community chipper events to assist homeowners with defensible space. It is the goal of the Fuels Management Division to continue and expand this aggressive management strategy throughout the county.



Fire crews and public participating in a “Community Chipper Event”



A Small Masticator was purchased in 2008 to assist in Fuels Management work.

DIVISION / BATTALION / PROGRAM PLANS**Battalion 1 Tehachapi*****Alpine Forest Park***

This is a series of winding streets with scattered housing. The predominant fuel model is grass and sage with some pines and oaks. The sage is the main concern relative to fire spread and intensity. Efforts have begun to reduce the volume of sage through creating small areas that could be burned under controlled conditions. To enhance the control factor, processes to crush much of the sage over several acre blocks have begun with the intent of burning the crushed vegetation under low intensity conditions. Property owner support has been mostly positive, with a few people that choose not to participate. A comprehensive plan needs to be developed to identify locations and the sequence that this project will follow. Additionally, a project to increase the brush clearance along the subdivision roads needs to be implemented with the property owners association. This past year we started a pilot Vegetation Management Partnership program with this community. This partnership allows for a cost sharing arrangement between the fire department and the homeowner's association to maintain fuel breaks in the community.

Currently projects pending for bug kill in Alpine Forest Park areas the State is determining plan of action for funding to complete hazard reduction in this area.

Bug kill in Alpine Forest is taking a major toll on the live pine stands in this area. This is very concerning considering the current and continued drought conditions in this area.

West Ranch/Blackburn Canyon

This area is located southeast of the City of Tehachapi. There are approximately 65 homes in the area that are served by narrow, twisting dirt roads with entrance/exit to the community made through two locations, one to the north, the other to the east. The most significant fire threat feature of this area is the volume and condition of the vegetation. The fuel models range from grass to brush to heavy concentrations of trees (oaks, pinions, gray pine, and others). There is substantial tree mortality in this area due to a combination of bug kill and dwarf mistletoe. There is a significant volume of hazardous fuels reduction work that needs to be done in this area. The residents that live in the area on a full-time basis are making progress toward reducing the total fuel volume; however, there are large numbers of absentee landowners that are not as committed to the fuel reduction. The number one priority for this area would be to reduce the number of dead and down trees that constitute a major portion of the existing fuel load. Secondly, establishing a system of shaded fuel breaks would reduce the intensity and spread rate of any fire that became established.

Hart Flat

Hart Flat has had some fuels reduction work done as a result of the FEMA Bear Valley Grant. The main focus of work here was in brushing Clear Creek Loop Road. Additionally, on an annual basis the community receives some pre-suppression protection through the maintenance of a fuel break that runs along the south side of eastbound Highway 58. This break inhibits fires that start on the freeway from spreading uphill into the Hart Flat community.

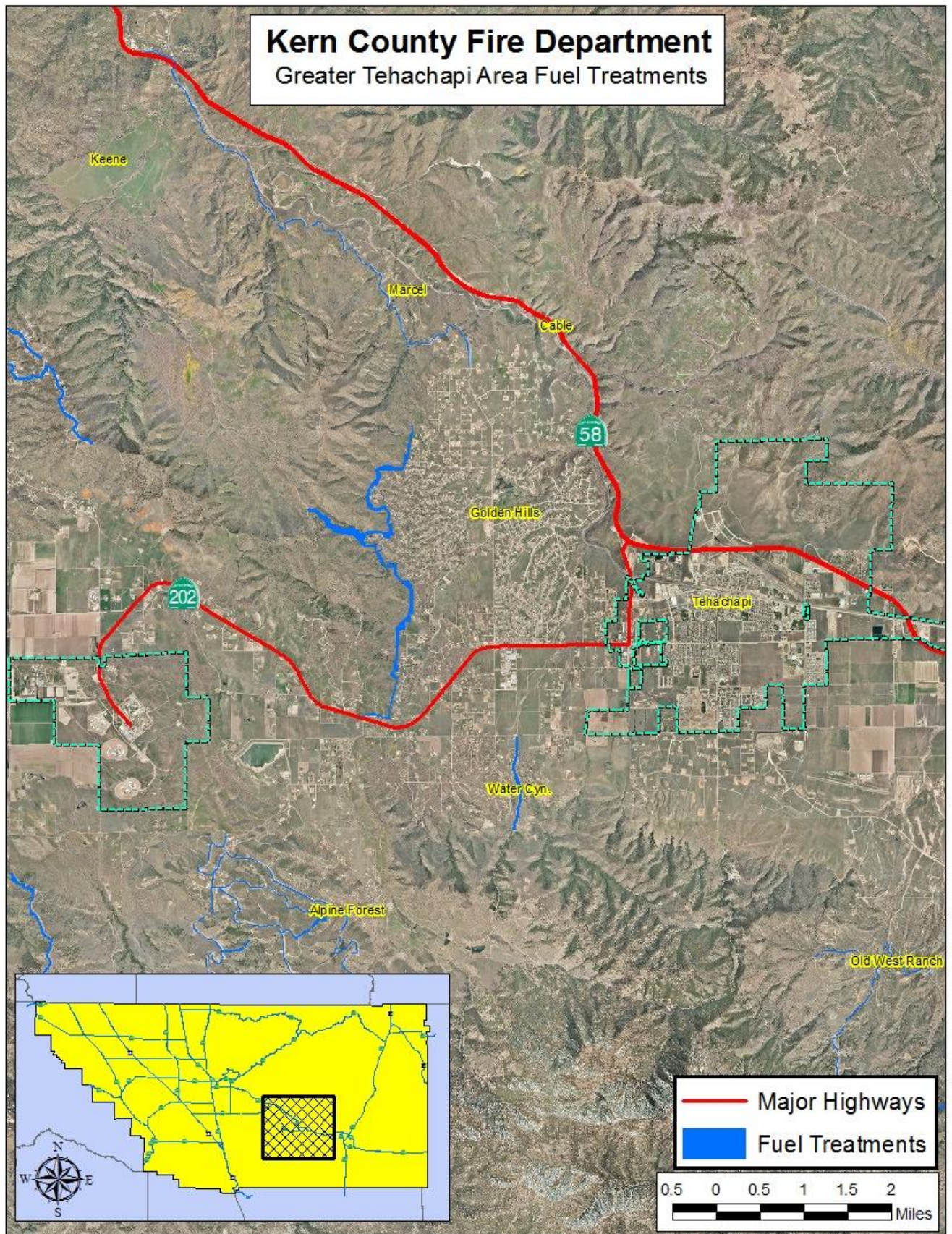
The community of Hart Flat has been very supportive of Fire suppression, and with there own resources have provided three helicopter water dip tanks.

Bear Valley

Bear Valley has had extensive fuels reduction work done as a result of the FEMA Bear Valley Grant. All of Skyline Road has been brushed, and shaded fuel breaks have been established connecting Skyline Road with Fargo Ct. and Amberwood with Lower Valley Road. There is still a substantial volume of work that could be accomplished in the Sycamore Canyon area and other areas identified in the Bear Valley Springs Fire Safety Plan. Bear Valley Springs property owners have initiated a program to eliminate a number of trees that have fallen victim to the bark beetle. This project needs to be continued and an additional project initiated to reduce the fuel load along the roadways in the northern portion of the subdivision.

Completed Fuels Management Projects for the area include:

- Bear valley Hazardous Tree Removal & Escape Route
- Skyline Fuel Break
- Golden Hills Phase 1&2 Fuel Breaks
- Alpine Forest Escape Route
- Stallion Alpine Fuel Break
- Old West Ranch Escape Route
- Wild horse Ridgeline Fuel break
- Tehachapi Mountain Park Defensible Space
- Hart Flat Escape Route
- Community Chipper Events



Battalion 2 Western Kern

Completed Fuels Management Projects for the area include:

- Maintained Fire Roads
- Dozer Disc Breaks

Battalion 3 North Kern

Completed Fuels Management Projects for the area include:

- Maintained Fire Roads
- Dozer Disc Breaks

Battalion 5 Mt. Pinos Communities

Digier Canyon

Digier Canyon is a predominantly residential area north of Lebec on the west side of Interstate Highway 5. The subdivision is partially within the Los Padres National Forest, with Fort Tejon State Park on the south and Wild Wolves Preserve on the west. The only access/egress is on Digier Rd. The subdivision is comprised of approximately 30 structures, both commercial and residential. The fuel model is predominantly grass and oak trees (FM1) with a scattering of brush. The main fire concern with Digier Canyon is not the fuel, but with the egress issues and its proximity to fires starting on I-5. The priority project for this area would be to explore options for secondary egress or the development of a community safety zone.

Frazier Park (south side)*

Frazier Park is a series of streets that hop and skip from one location to another, apparently with little or no planning/development standards or guidelines. Many of the dirt roads have brush intruding into the right-of-way and little maintenance has been done. The fuel types range from grass and light brush mixed with conifers (FM1) to heavy brush (FM4). Around the south side of the subdivision is predominantly brush with scattered pines and juniper, and some oak. A grant proposal has been written and tentatively approved to construct a shaded fuel break around the south side tying into Frazier Mountain Park Road on the east and west sides. This break would be approximately 100' wide, providing a buffer for the subdivision from a fire approaching out of the forest or a fire emanating from the homes spreading into the forest.

Pine Mountain Club*

Pine Mountain Club is a planned community surrounded by the Los Padres National Forest. It has approximately 3,000 parcels. Approximately 2,000 of these parcels have been developed. For the past five years the Kern County Fire Department has been performing hazard reduction inspections in Pine Mountain Club. The fuel loading is heavy predominantly live oak, sage, and pine. KCFD and LPF personnel and the Property Owners Association have made great efforts, but the sheer volume of material has made for slow progress. The property owners commissioned a contractor to develop a vegetation management plan (which has been done) and have received a hazardous fuels reduction grant to begin implementation of the plan.. This grant has been renewed and current work is being done in this community consisting of shaded fuel break projects.

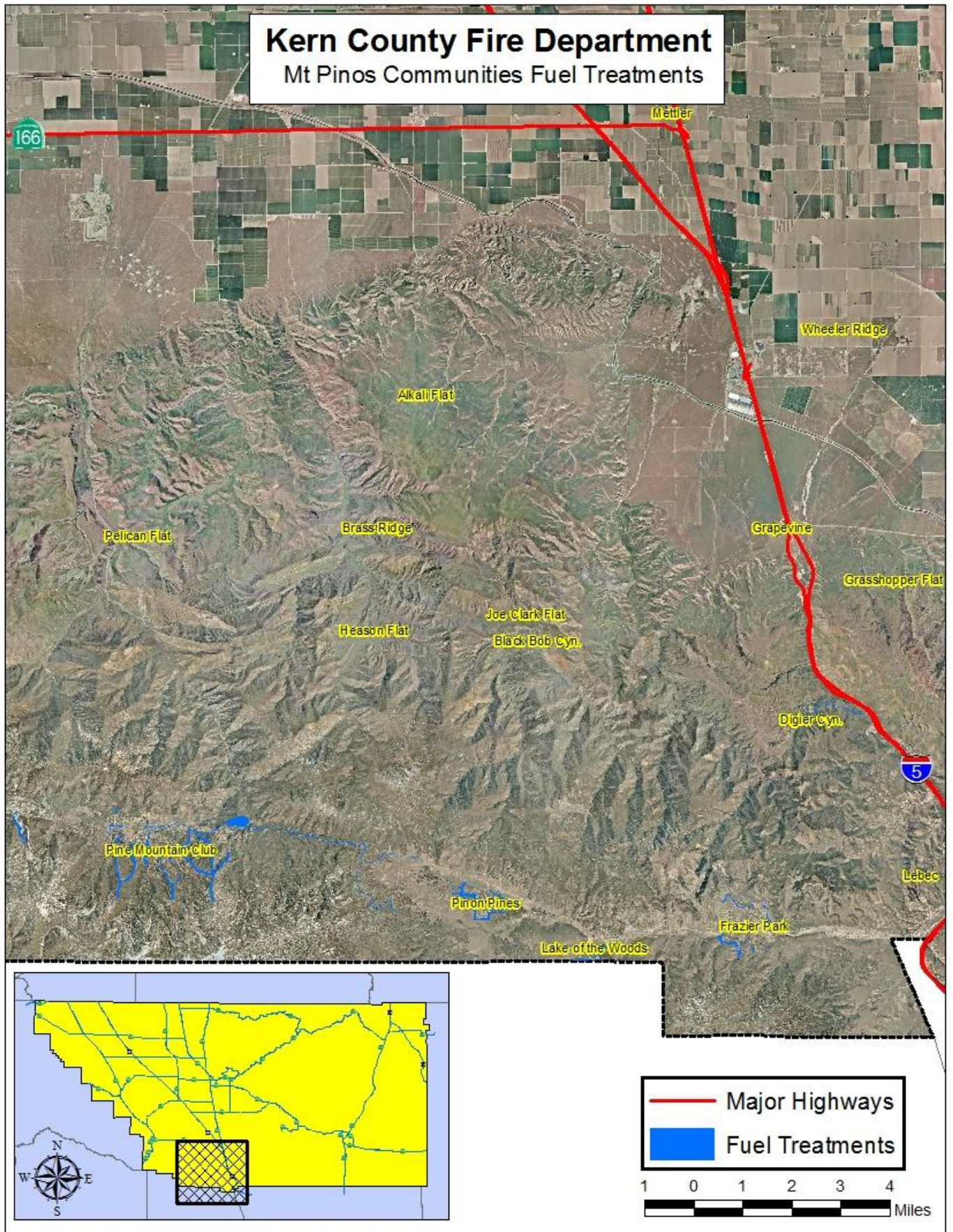
Pinion Pines*

Pinion Pines is a small community between Frazier Park and Pine Mountain Club, surrounded by Los Padres National Forest. In 2006 a wildland fire destroyed one home and damaged another. This incident raised local awareness to the dangers of current fuel conditions. Residents have been fairly active in projects around their homes. A shaded fuel break was constructed and has been maintained around the community of Pinion Pines. Annual Chipper days are coordinated with the community and carried out by Kern County Fire Crews.

*SRA within LPF DPA – USFS has wildland fire protection responsibility; KCFD has fire protection responsibility for structures and improvements

Completed Fuels Management Projects for the area include:

- Frazier Park Community Fuel Break
- Lake of the Woods Community Fuel Break
- Pinion Pines Community Fuel Break
- Camp Condor Escape Route
- Pine Mtn. Club open space Fuels Reduction
- Pine Mtn. Club Ridgeline Fuel Break (west end)
- Digier Canyon Escape Route



Battalion 4 & 6 Valley/ Foothill

Breckenridge Subdivision

The Breckenridge subdivision is entirely within the boundaries of the Sequoia National Forest. It is comprised of between 35-40 cabins, with very few full-time residents. The fuels are a timber model (FM8) with heavy concentrations of down, dead fuel. Access to the subdivision is also an issue in that the paved portion is single-lane, paved forest road with dirt roads within the subdivision itself. The priority project for this area would be a general reduction of the accumulated dead and down material that is pervasive throughout the subdivision. The private properties within the subdivision are intermixed with Forestland. This creates a problem in that the private lands have had some clearing done but are immediately adjacent to Forest property, which has had no treatment. A project to reduce the fuel loading within the boundaries of the subdivision would require close coordination between the property owners and the National Forest. Additionally, a general widening of the roads within the subdivision would provide better access to the cabins and the water tanks.

Completed Fuels Management Projects for the area include:

- Maintained Fire Roads
- Dozer Disc Breaks

Battalion 7 Kern River Valley

Alta Sierra – SRA within SQF DPA

Alta Sierra is within the boundaries of the Sequoia National Forest. It has substantial fuel buildup on the private properties within the County Park that is located there and on the Forest Service property surrounding the subdivision. There are currently one Forest Service grants in effect for the Alta Sierra area. It is to establish a 100-150' shaded fuel break around the Camp Yenis Hante totaling 9.5 acres. This project should be completed by June 2014

A Type 6 engine has been established since 2012 and will be staffed with one permanent and two seasonal firefighters. From May 1st till Sept 30th the Type 6 will be stationed in Alta Sierra and respond to emergency calls as needed. This crew also maintains fuel reduction projects.

Isabella Highlands

This area is west of Lake Isabella at the top of a narrow, steep, twisting one-lane road. It has been a victim of wild fire on a number of occasions, most recently June of 2003, with the loss of five homes. The roads within the subdivision are also narrow and encroached by vegetation throughout the area. There is currently a BLM-funded grant in effect to reduce the volume of fuel both along the roads and in the drainages leading up to the subdivision and some areas above the homes. There are additional needs within the community. Street signs, house numbers, and water source identification are among the current needs.

Frontier Homes/Rogers Road

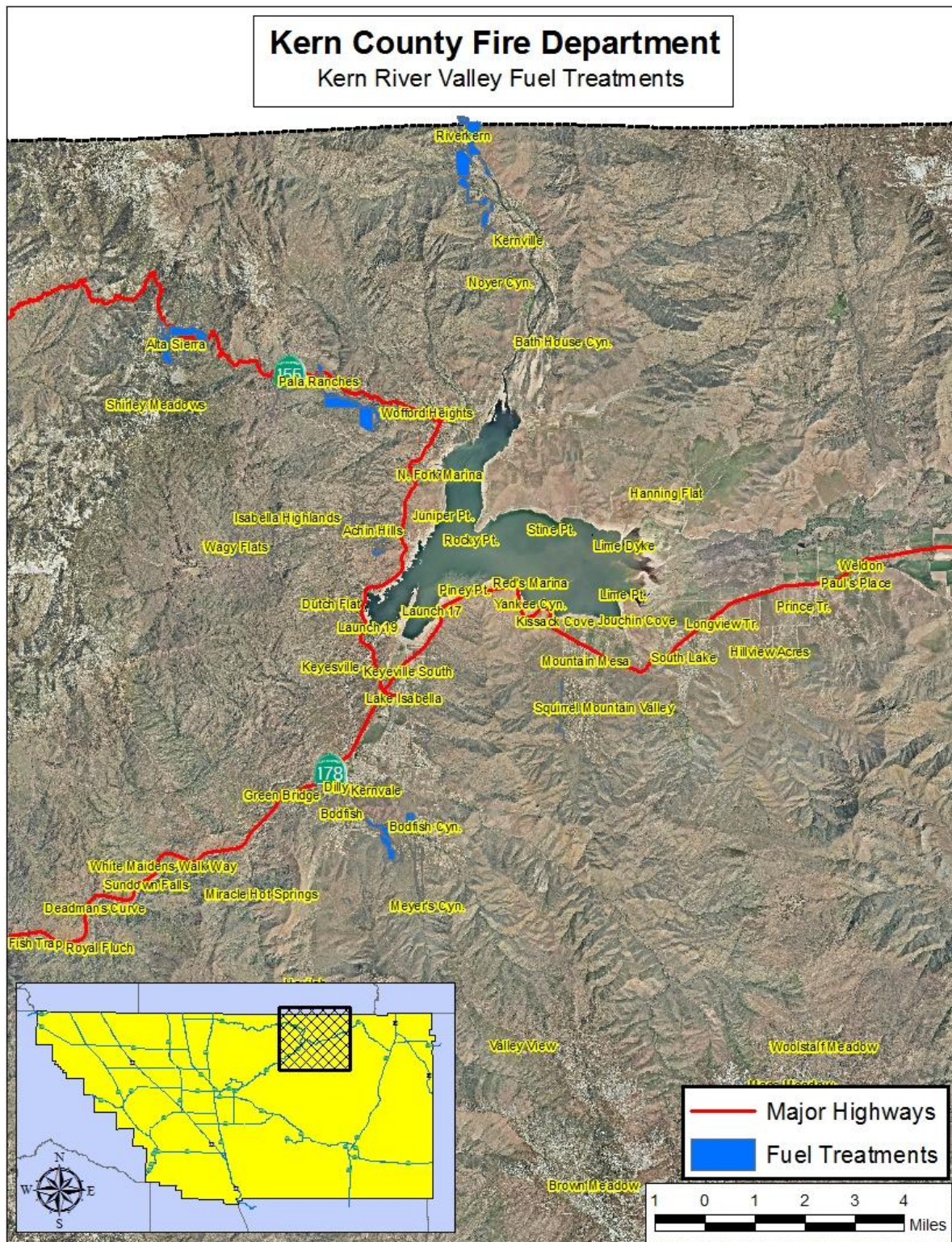
This area is west and immediately adjacent to Kernville. Rogers Road serves about a dozen homes and leads up to the Frontier Homes subdivision. Frontier Homes has a north side and a south side. A single-lane, dead-end road serves each side. The fuel load is mainly grass with scattered California gray pine. Some pockets of brush exist in the drainage bottoms and/or on north aspects. The main threat to this subdivision is not from the fuel within the subdivision, but from the neighborhoods below. The Rogers Road area presents one of the hazards to the Frontier Homes area. A Forest Service Grant is currently in place to do a hazardous fuel reduction project in the drainage bottom to the south of Rogers Road.

Upper Bodfish/Meyers Canyon

The upper Bodfish/Meyers Canyon area has a history of frequent fires, some of which have become quite large. The "Bodfish" fire in 1984 grew to greater than 35,000 acres. The fuel models in the area vary from grass to heavy brush to trees. The property owners have done a great deal of work; however, there are a large number of parcels that are owned by out-of-area owners. These properties represent a large fire hazard and it has been difficult to achieve successful hazard reduction code compliance. There is currently a proposed BLM-funded grant for the west side of Meyers Canyon to create a shaded fuel break. This would protect approximately 100 homes from a fire starting down canyon from the Meyers Canyon subdivision.

Completed Fuels Management Projects for the area include:

- Bodfish Canyon Escape Route Phase 1-3
- Kernville Community Fuel Breaks
- Hungry Gulch/Isabella Highlands Defensible Space
- Alta Sierra Defense Zone/ Timber Harvest/ Escape Route
- Piute Meadows Escape Route
- Pala Ranches Community Fuel Break
- Squirrel Valley Fuel Break



APPENDIX A: PRE- FIRE PROJECTS

[Return to Table of Contents](#)

Our project priorities are updated on an annual basis and can be located at the following sites below.

<http://www.tehachapifiresafe.com/>

<http://www.mtpinosfsc.org/>

<http://www.krvfiresafecouncil.org/>

Status Guide: A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance.

CAL FIRE Units were asked to identify two or more priority objectives under each goal in the 2010 Strategic Fire Plan for California. The Units' priorities are identified in bold and a measurement criteria are provided for each of the identified objectives. Throughout the next year, the Units will implement the identified priorities and report on the measurement criteria by June 2012. The priority objectives are displayed under three headings:

A. SACRAMENTO PROGRAMS OR COMMITTEE ONLY

B. SACRAMENTO PROGRAMS AND STAFF OR COMMITTEE, REGIONS AND UNITS

C. UNITS ONLY

These categories are not intended to exclude Units from addressing priority objectives in any of the three categories, they are only recommendations.

A. SACRAMENTO PROGRAMS OR COMMITTEE ONLY

Goal 1: Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.

Objectives:

A. Identify and provide appropriate automated tools to facilitate the collection, analysis and consistent presentation of datasets.

Measurement Criteria: *CAL FIRE shall establish policy that specifies spatial databases covering all forest and rangeland to not be older than 10 years. Include minimum requirements for spatial databases. Follow the coordinated work schedule with the USDA Forest Service to maintain cost effective collection and processing of data.*

Goal 2: Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.

Objectives:

- a) Identify the minimum key elements necessary to achieve a fire safe community, and incorporate these elements into land use planning, CWPPs and regional, county and Unit fire plans.**

Measurement Criteria: *CAL FIRE to create a working committee with CAL Chiefs, USDA Forest Service and other key organizations to develop, monitor and refine elements of fire safe community, including evacuation plans. The Committee shall review existing templates for FIREWISE Assessments, CWPPs, fire plans and land use plans; identify the common elements and approaches for better integration. Utilize fire protection, planning and engineering expertise to identify the key elements (from existing templates) necessary for fire safe communities. Once agreed upon, these key elements will then be used as a checklist to guide*

consistency in fire safe planning efforts across jurisdictions. At a minimum, annually report to the Board on results.

Goal 3: Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county and regional plans that address fire protection and landowner objectives.

Objectives:

- a) Establish a working group, consisting of Board members and Departmental staff, to develop minimum standard elements for inclusion in Unit fire plans.**
- b) Emphasize coordination of Unit fire plans with community wildfire protection plans to encourage and support one consistent approach. Develop county or regional fire plans by bringing together community-based groups, such as fire safe councils and affected fire and land management agencies.**

Measurement Criteria: *These measurement criteria meets objectives a and b. CAL FIRE to revise the template for the Unit fire plans to incorporate the goals and objectives of the 2010 Strategic Fire Plan. During the revision, the template for a CWPP will be jointly reviewed in order to reduce duplication of fire planning efforts. The key elements identified through the process identified in Goal 2, Objective b will also be incorporated into the Unit fire plan/CWPP.*

- a) Create and support venues in which individual community members can be actively involved in local fire safe councils, community emergency response teams, FIREWISE and other community-based efforts to develop readiness plans and educate landowners to mitigate the risks and effects of wildland fire.**

Measurement Criteria: *The California Fire Alliance to work with the California and local FSCs to develop venues (e.g., workshops) that assist landowners with readiness planning and education. CAL FIRE, California Fire Alliance Liaison to report to the Board annually on Alliance activities.*

Goal 4: Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.

Objectives:

- a) Educate landowners, residents and business owners about the risks and their incumbent responsibilities of living in the wildlands, including applicable regulations, prevention measures and preplanning activities.**

Measurement Criteria: *In coordination with the CAL FIRE Communications Program, the USDA Forest Service and local fire agencies, University of California and county cooperative extension offices, CAL FIRE to collect information on methods and effectiveness of existing outreach. Complete the information collection within year one of adoption of the 2010 Strategic Fire Plan. Develop a common set of measures to assess CAL FIRE efforts, build those into Unit fire plans and report to the Board. Report the progress of implementation at the end of year two.*

Goal 5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objectives:

- a) **Work to remove regulatory barriers that limit hazardous fuels reduction activities.**

Measurement Criteria: *In conjunction with the Resource Protection Committee, CAL FIRE will develop an approach to identifying and recommending ways to address regulatory and other barriers that limit hazardous fuels reduction activities. This approach should include consultation with the Board's Interagency Forestry Working Group and with other agencies, such as the USDA Forest Service, the US Fish and Wildlife Service, the California Energy Commission, the Department of Fish and Game, regional water quality control boards, local government and the public. Finish this compilation within the first year of adoption of the 2010 Strategic Fire Plan. Based on barriers identified and recommendations for change, report to the Board starting in the second year.*

Goal 6: Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

Objectives:

- a) **Initiate and maintain cooperative fire protection agreements with local, state and federal partners that value the importance of an integrated, cooperative, regional fire protection system and deliver efficient and cost effective emergency response capabilities beneficial to all stakeholders.**

Measurement Criteria: *CAL FIRE to identify the number and effectiveness of agreements and partnerships. In conjunction with the Board's Resource Protection Committee, CAL FIRE will develop suggested measures of effectiveness of cooperative agreements. This should be in collaboration with its partners, completed within 18 months of adoption of the 2010 Strategic Fire Plan and reported to the Board.*

- a) **Provide for succession planning and employee development at all levels within CAL FIRE to maintain emergency response leadership capabilities, administrative management skills and pre-fire planning expertise.**

Measurement Criteria: *CAL FIRE to revise and update the information developed in the 2005 Succession Planning meetings. This work should be completed within two years of the adoption of the 2010 Strategic Fire Plan, with annual reporting to the Board based on issues raised, including identification of key training needs, funding available and expenditures on the training program, content of Academy curricula, number of students requesting and/or able to take classes at the Academy, local community college or other educational outlets.*

B. SACRAMENTO PROGRAMS AND STAFF OR COMMITTEE, REGIONS AND UNITS

Goal 1: Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.

Objectives:

- a) Engage and participate with local stakeholder groups (i.e., fire safe councils and others) to validate and prioritize the assets at risk.**

Measurement Criteria: *CAL FIRE shall designate personnel as advisors/liaisons to the California Fire Safe Council (CFSC) and to each county or regional FSC. The advisors will be responsible for reporting activities to the Unit and Region. The advisor to the CFSC will report to the Board. Annual reporting of time-spent working will be displayed in hours at the Unit, Region and Headquarters level. Reporting will include activities with local FSCs, communities, watershed groups or others defining hazards and risk of wildfire and documenting these in a CWPP or Unit fire plan. Emphasize the products developed in Goal 3, Objective b. Advisors will emphasize using standard guidelines and templates for consistency throughout the state.*

Goal 2: Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.

Objectives:

- a) Assist the appropriate governmental bodies in the development of a comprehensive set of wildland and wildland urban interface (WUI) protection policies for inclusion in each county general plan or other appropriate local land use planning documents.**

Measurement Criteria: *CAL FIRE to appoint a committee including Unit, Region, Headquarters and Contract County representatives. Develop a work plan that identifies key elements of improving WUI strategies, including planning. Reporting should be based on elements identified and priorities for addressing them.*

Under the Board's Resource Protection Committee, review existing Board policies as they relate to wildland fire and the relevance (ease of use, applicability) to incorporation in local general plans. Identify areas of possible improvement and update policies.

Track and report hours at the Unit, Region and Headquarters level spent in reviewing plans and projects; number of local Board/Council, Planning Commission meetings and/or meetings with other cooperators.

Goal 4: Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.

Objectives:

- a) **Increase the number and effectiveness of defensible space inspections and promote an increasing level of compliance with defensible space laws and regulations through the use of CAL FIRE staffing as available, public and private organizations, and alternative inspection methods.**

Measurement Criteria: *CAL FIRE to form an advisory committee to review PRC §4291 regulations and make recommendations to the Board that will provide for consistency, streamlining and clarification of existing regulations. The Committee shall develop criteria to increase the number and effectiveness of defensible space inspections. The Committee will develop an implementation plan for the recommendations and report on progress to the Board*

Goal 7: Address post-fire responsibilities for natural resource recovery, including watershed protection reforestation, and ecosystem restoration.

Objectives:

- a) **Encourage rapid post-fire assessment, as appropriate, and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.**

Measurement Criteria: *Provide training for CAL FIRE personnel on suppression repair and damage assessment procedures. Develop standard formats and documentation templates for these assessments. Identify and use the findings to reduce the impacts of fire suppression on the landscape and improve resiliency of assets at risk from wildfire.*

C. UNITS ONLY

Goal 5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objectives:

- a) **Support the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources, as well as public and private sector resources, for fuels management activities, including ongoing maintenance.**

Measurement Criteria: *CAL FIRE will report to the Board on the number of crews available each year with a description of projects, including acres treated, completed by each Unit. Report the number of agreements and/or amount of funding and acres treated that involve grants or partnerships with federal agencies, resource conservation districts, local FSCs, fire districts, watershed groups or other non-profit or community groups that support the ability to carry out fuels reduction projects.*

Goal 7: Address post-fire responsibilities for natural resource recovery, including watershed protection reforestation, and ecosystem restoration.

Objectives:

- a) **Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g., roads, firelines, water sources) developed during a fire suppression effort, taking into consideration those identified in previous planning efforts.**

Measurement Criteria: *CAL FIRE (utilizing Incident Command Teams) to schedule a post-fire review of the planning documents that cover the area affected by the fire. Review the goals, objectives and projects (implemented and planned) to identify successes and failures. Review the features developed during the fire and incorporate them into the existing Unit fire plan documents. This objective will only be reported when a fire occurs in an area with an existing Unit fire plan document. Incident command teams may conduct this post fire assessment under the direction of the Unit Chief.*

Appendix C : MAPS

[Return to Table of Contents](#)

Figure A: Unit Map

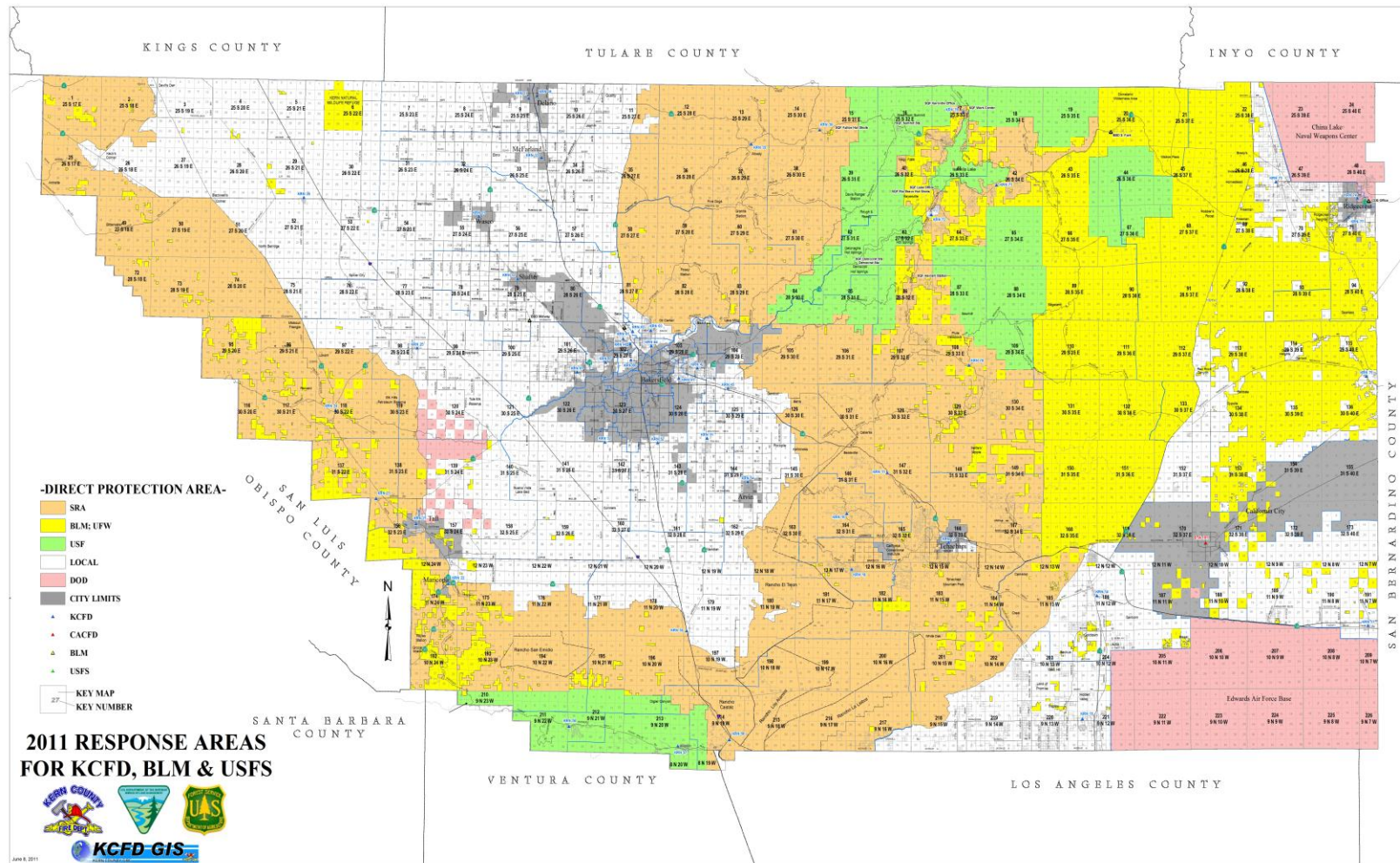
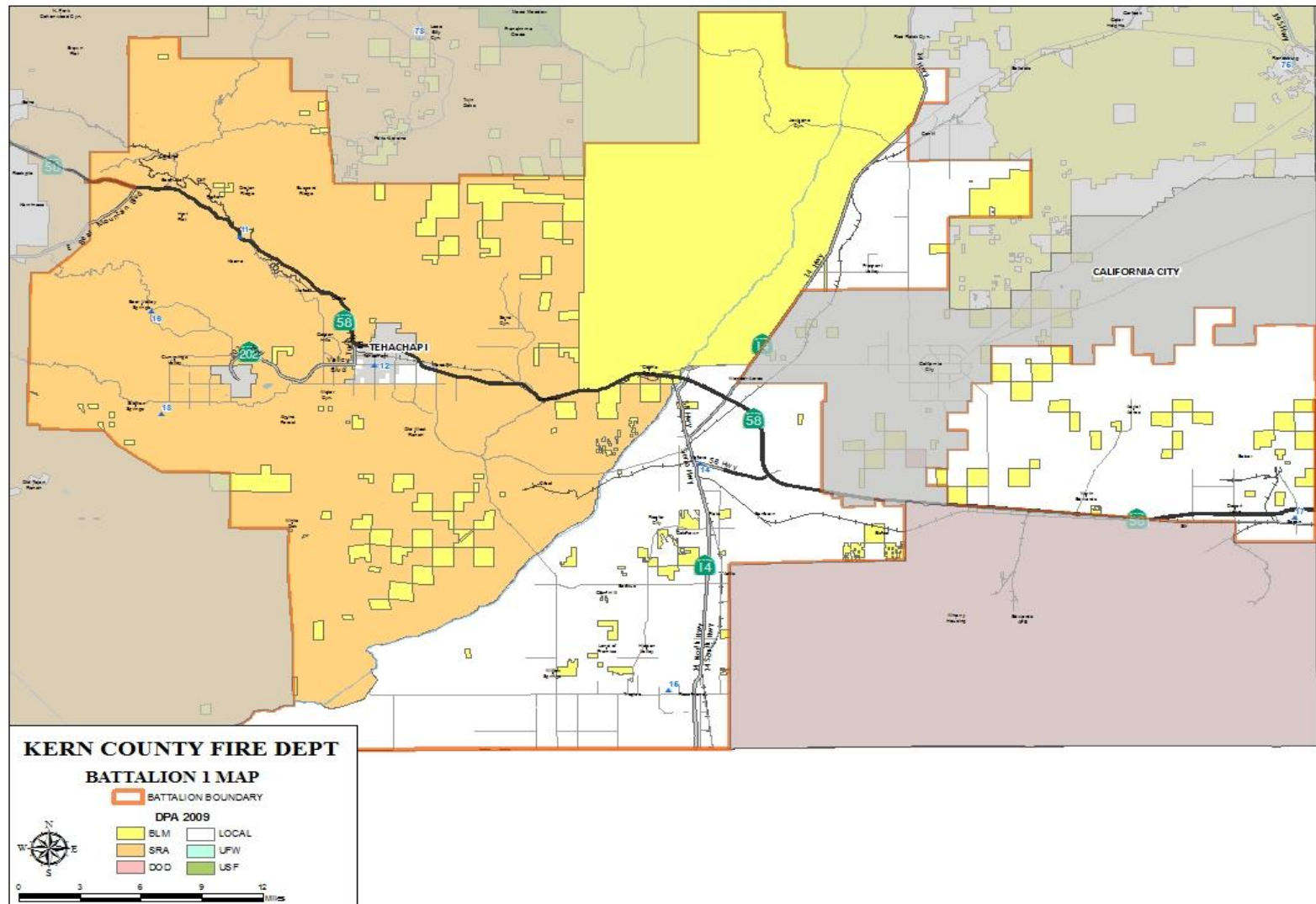
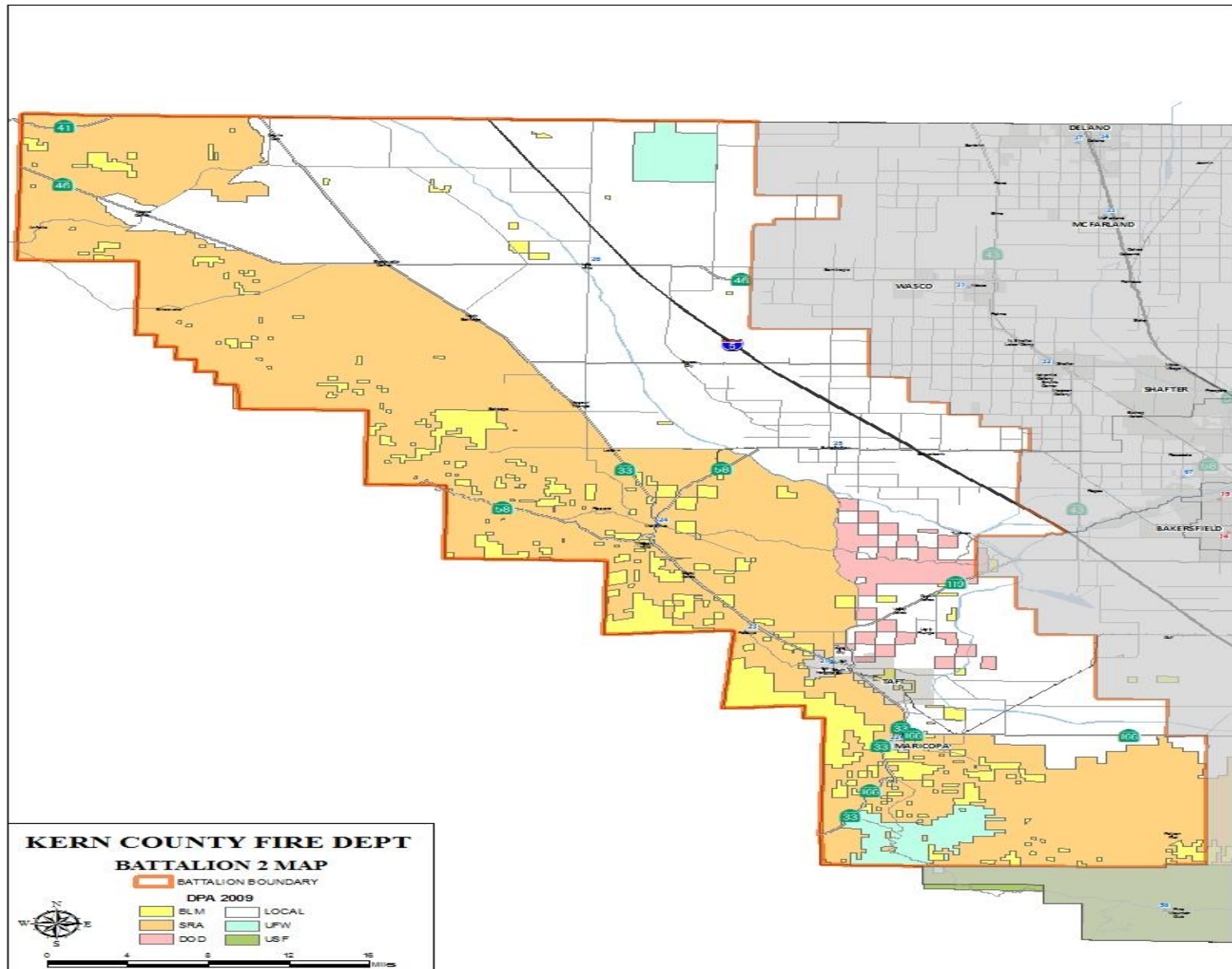


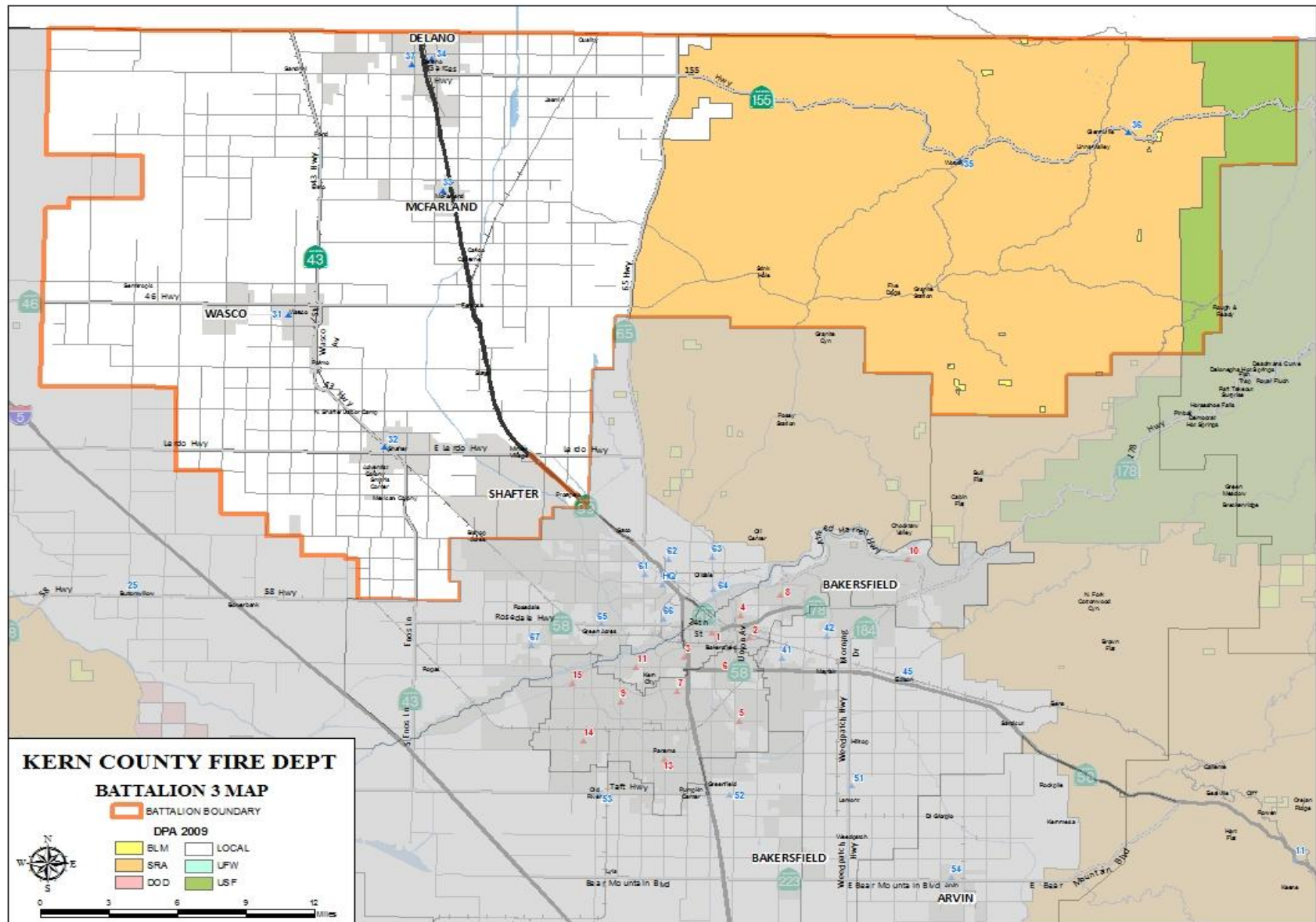
Figure B: Battalion Maps
Battalion 1



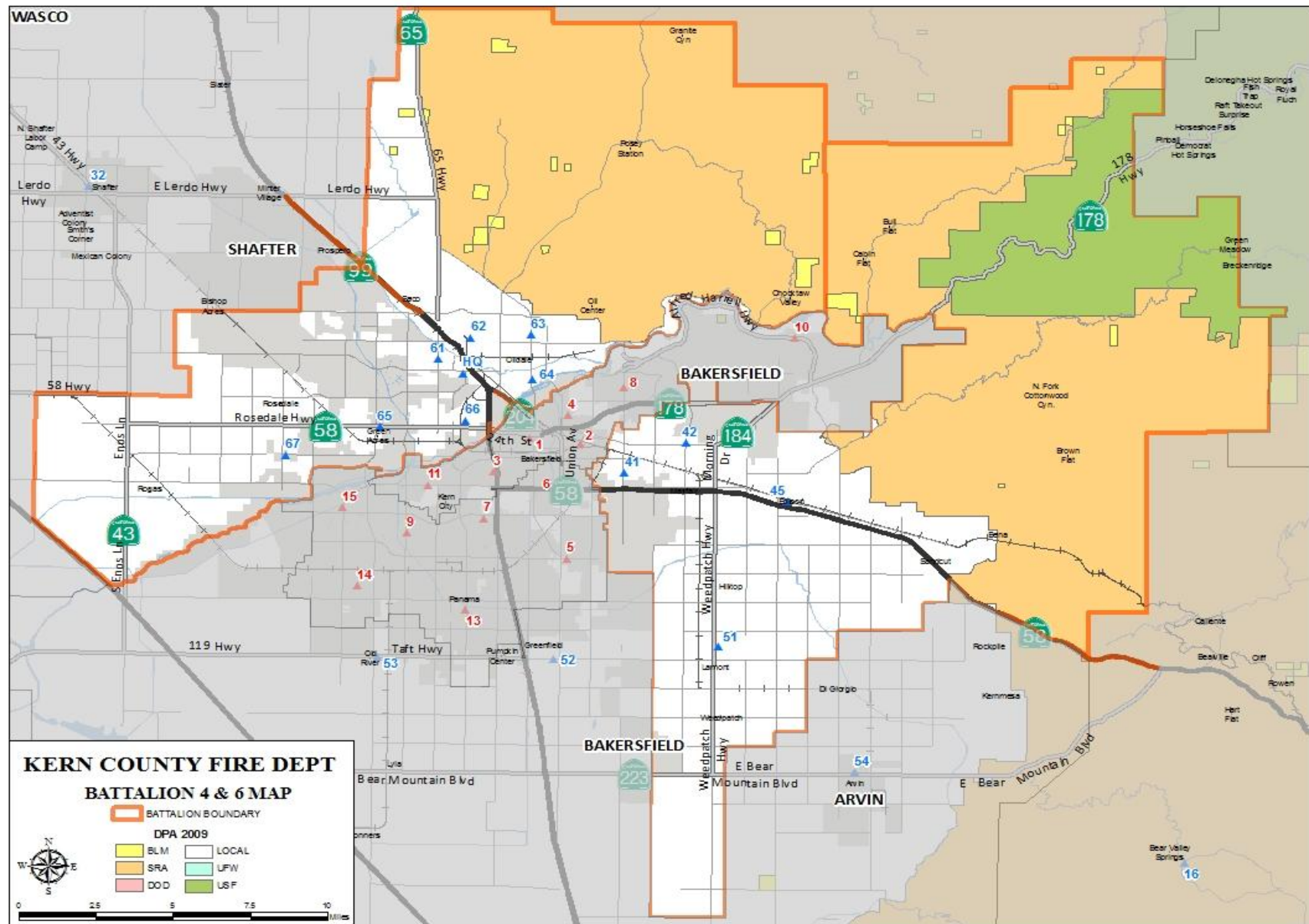
Battalion 2



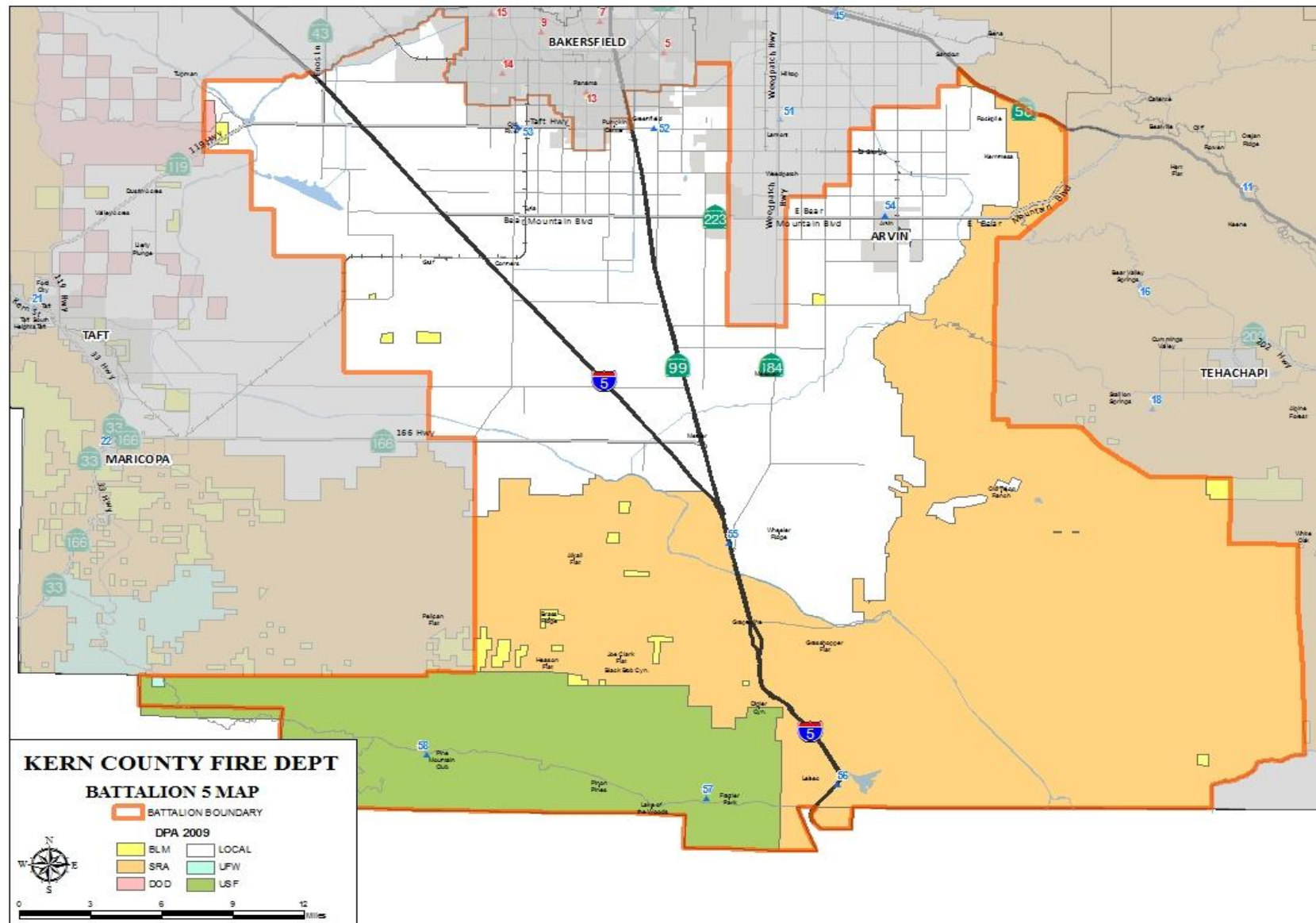
Battalion 3



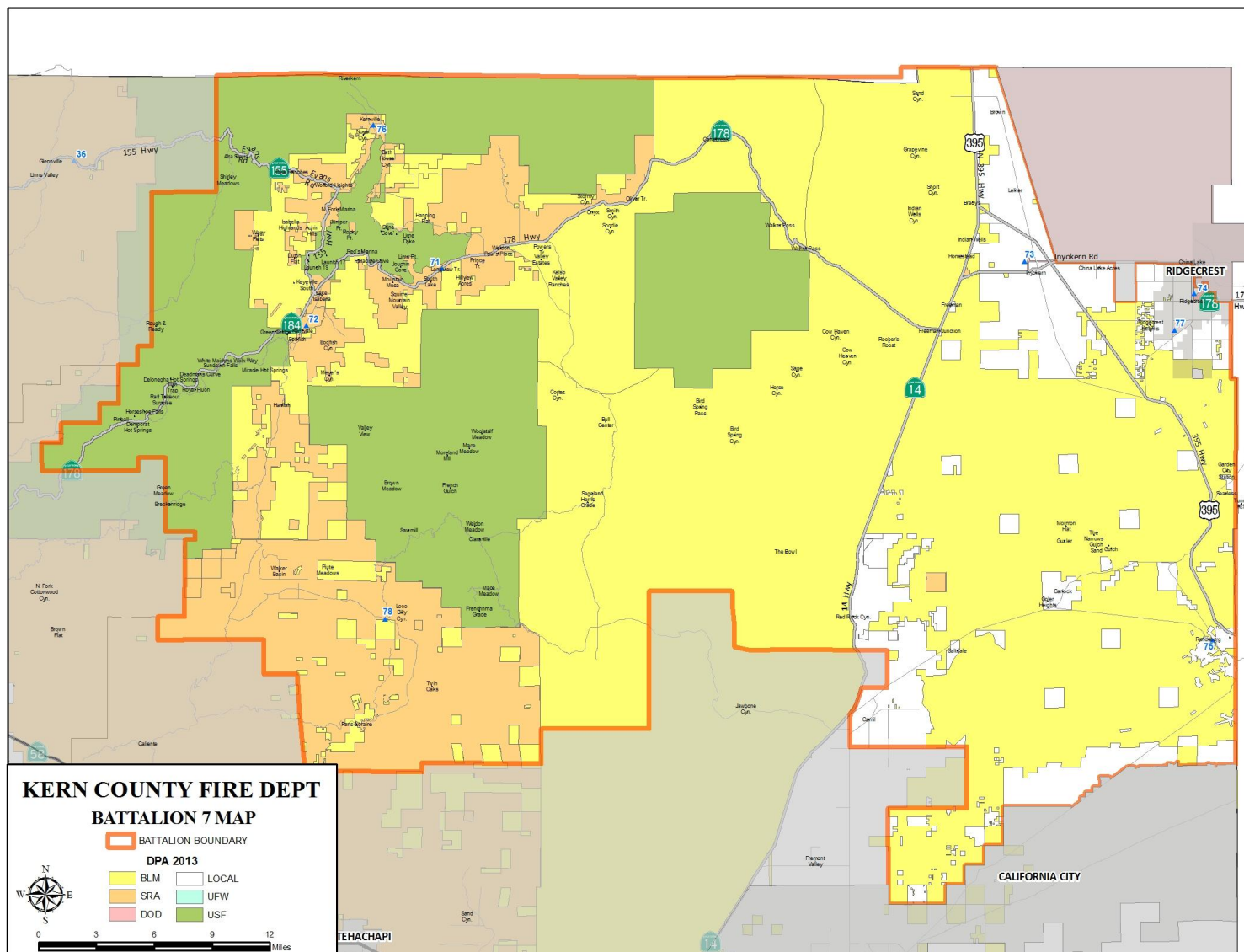
Battalion 4 and 6



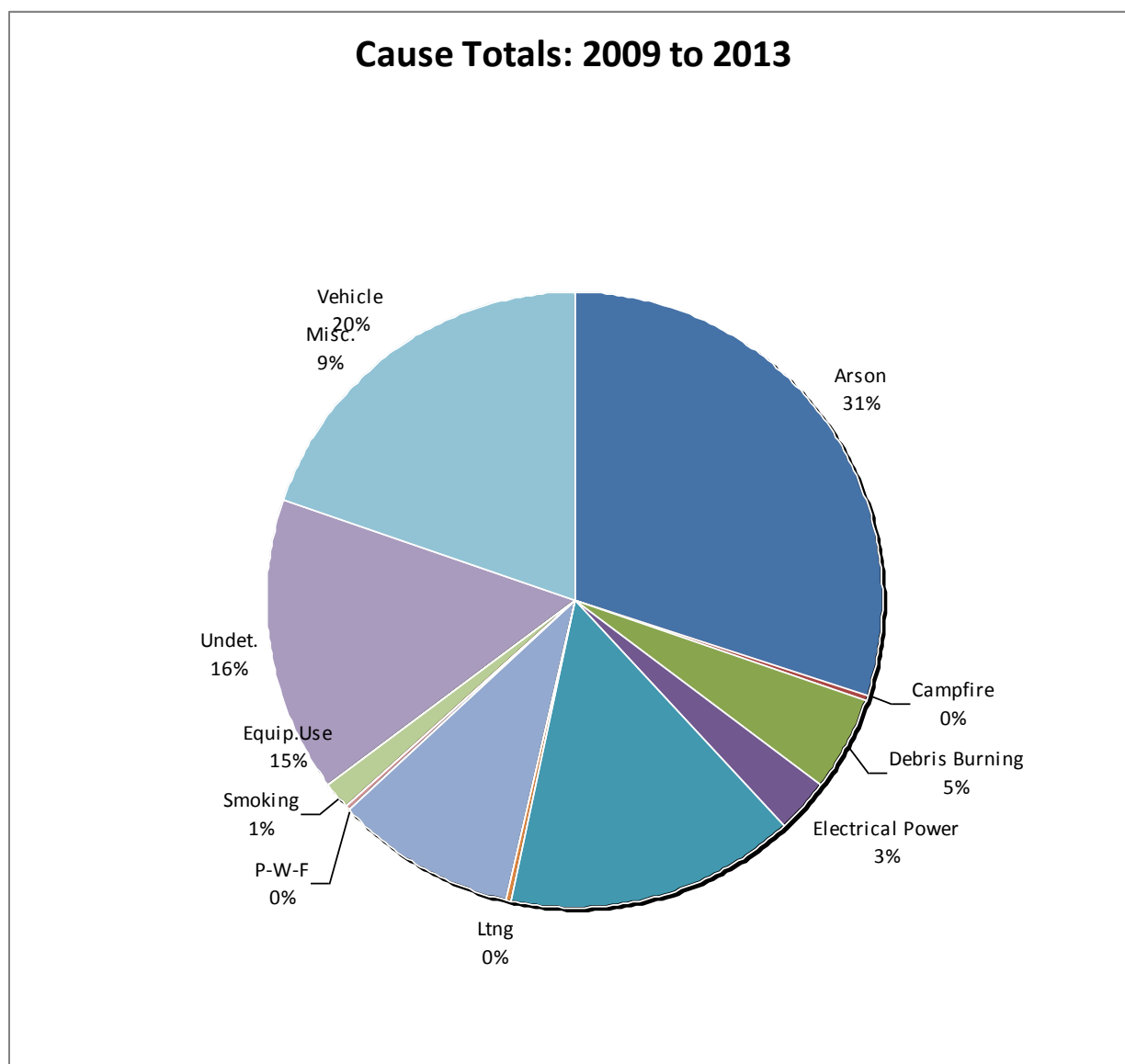
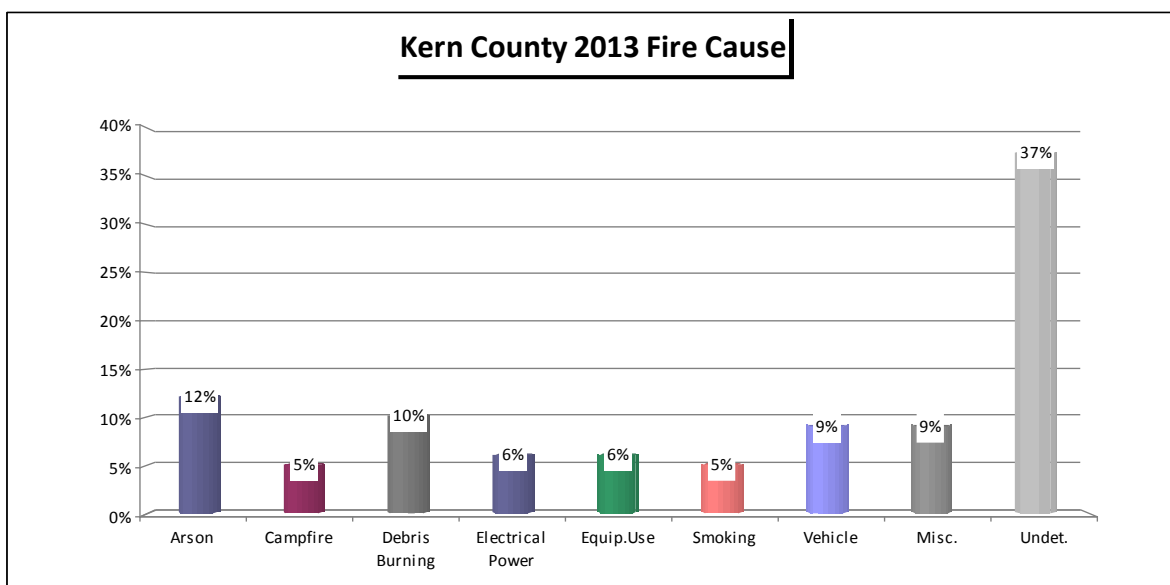
Battalion 5



Battalion 7



APENDIX D: IGNITIONS



Summary

Kern County Fire Department has a unique and large wildland fire protection area serving many communities over a very large area. The Kern County Fire Dept is continually working with our wildfire hazard communities.

We have effectively established and maintained hundreds of acres of fuel reduction projects in and around communities prone to wildland fires. Our involvement also includes chipper days where we provide a chipper and a crew to a community and will remove fuels that have been cut by the residents.

We accomplish these hazard reduction projects with our seasonal fuels crews and by working with local Fire Safe Councils.

There are three councils in Kern County covering the needs of our communities at risk.

- Greater Tehachapi Fire Safe Council
- Mt Pinos Community Fire Safe Council
- Kern River Fire Safe council

Working with these communities' benefits Kern County Fire Dept keeping us connected with the unique concerns of each area. Also allowing us to bring public education and prevention into these areas.

Kern County Battalion 8 has established a wildland fire facility "Camp 8" In Tehachapi. This old elementary school has been converted to facilitate the needs of our wildland fire crews, providing office space work areas for crew operations, and classrooms for continued wildland fire training. This facility can also support large fire camp operations including incident command post and all support needed to run these large operations.

We have established helicopter water dip tanks in our wildland fire communities for many years. Being that Kern County is a very dry climate with minimum amounts of natural water sources. These tanks give our firefighting/rescue helicopters a more effective turn around time that equals more water on a fire faster. We currently have 25 dip tanks that have been strategically placed throughout many of our prone wildland fire communities.

Kern County Battalion 8 has also established a seasonal type 6 engine in the community of Alta Sierra. This has been done to assist in responding to emergency calls due to the large seasonal summer population growth to this area. The engine is staffed with one full time Firefighter and two seasonal.

With these accomplishments we are able to be more effective in protection combined containing and controlling these unpredictable wildfires. Kern Counties Fire Departments continued involvement with fire safe communities, fuel treatment projects, education prevention for the public will help drive us forward to specific needs as they arise. Ever increasing pre fire planning and knowledge associated in Kern County's unique and specific pre fire plan needs.

Annual Report of Unit Accomplishments

- 1000+ acres of fuels vegetation treatment
- Instillation of 1 helicopter water sources in Battalion 2 Wind wolves preserve.
- Staff seasonal type 6 engine at Alta Sierra one month earlier due to drought conditions.
- Continuing Grant projects in Battalions 1, 5, and 7
- 1000+ piles burnt in the Lake Isabella area all remnants from previous fuels projects.